

The Family

GOD SAVE THE WORLD!

(A Hymn for Patriots of the Kingdom)

Our Father, King Most High,
To Thee in faith we cry,
God save the world!
Send forth Thy love and light,
Put forth Thy power and might,
Conquer our sin and night,
God save the world!

O Christ, the Light divine,
On every nation shine,
To save the world.
May Thy cross everywhere
Thy deathless love declare,
Lead all to faith and prayer,
And save the world!

Spirit enthroned within,
Of judgment and of sin
Convict the world!
Point souls to Him who bled
And suffered in our stead,
Give life unto the dead,
And save the world!

O blessed One in Three,
Our earnest prayer shall be,
God save the world!
Then when this night has gone,
And from Thy glorious throne
Thy word will say, "'Tis done."
Saved is the world!

—Robert Garside.

Canada.

THE HONEY-MAKING ANT.

For ages the ant has been praised for its intelligence and industry. It is said there are more than three thousand distinct species, many of which seem to display almost human intelligence. The Agricultural Ant of Texas and the Occident Ant of the Great Plains harvest and store away grain and seeds for their wants through the winter months. The Warrior ants of South America go forth in great armies, attacking and destroying colonies of other and smaller species. Many species have nurses to care for their young, and soldiers to defend them against the attacks of hostile insects, or of ants of other colonies. Some keep "cows" or little plant lice that answer the same purpose, supplying their captors with a nutritious liquid. Some construct roads and build bridges, and others are known, from their characteristic activity, as miner ants, mason ants and carpenter ants. Nearly all species take the best care of their young and of the eggs before they are hatched, help injured or disabled companions and bury dead members of the colony.

However, of all these species of ants, none are more interesting and remarkable than the Honey-Making Ants of the Southwest. They are found in New Mexico, Arizona, Texas, Colorado, Southern Nevada and the northern part of Mexico. Externally their nests are small mounds of gravel and sand, generally not more than six or seven inches in

height, and from three to ten inches in diameter at the base. However, it is not uncommon to find nests three or four times this size. In order to secure perfect drainage and the full benefit of the sun's warmth, the honey-makers erect their low mounds on ridges and slight elevations. Entrance into the interior is effected through a tubular opening, an inch or less in diameter. This opening is always in the apex of the mound, differing from that of the Occident Ant, which is in the side. This furnishes a ready means of identifying the honey-makers, in regions where both species are found.

In the first chamber below the entrance are the honey-bearers of the colony. These are really nothing but living storehouses—clinging by their feet to the dome-shaped roof, while their rotund abdomens hang down towards the floor, distended into almost perfect globes by their contents of clear, amber-colored honey. The room in which the honey-bearers (called "rotunds") are found are oval-shaped, three or four inches wide and five or six inches long. Not more than twenty-five or thirty rotunds are found in a room, but each colony contains five hundred or more rotunds, occupying from ten to twenty apartments. Below the honey rooms are many galleries, sometimes extending six feet or more beneath the surface of the ground. Some of these are occupied by young ants, some have nothing in them but eggs, some are the sleeping and resting places of the workers, and the lowest room of all is the one occupied by the queen and her bodyguard. Doubtless instinct teaches the members of the colony that its preservation depends upon the life of the queen. Hence they put her in the place most difficult of access, where no accidents can befall her that would not involve the prior destruction of the whole community.

The workers secure their supply of honey from oak galls, found abundantly on a species of scrub oak that grows throughout the territory in which the honey-makers live. The little creatures work only at night, starting forth shortly after sundown, and remaining on the oak trees until burdened down with nectar. Some are so successful that they start back to the nest before midnight, but others are delayed until after daybreak. However, all are safely back in the underground rooms and galleries before sunrise. On arriving at the nest, they all make haste to unload their burdens. Going straight to the honey rooms, they deliver their loads over to the rotunds. These resemble nothing else so much as a cluster of small grapes or large currants, hanging down from the roof of the chamber.

Through the summer months the honey placed in the custody of these animated storehouses is never touched; but after the frost has killed the oak leaves, and the galls yield their nectar no more, the ants go to the honey-bearers for food, just as bees go to the stored-up sweetness of the honey-comb. The hun-

gry ant places its mouth to that of the honey-bearer. The muscles of the abdomen of the latter contract, squeezing out a tiny globule of honey, which hangs down from a thread-like filament under the rotund's jaws. From this the waiting pensioner eagerly laps it.

If the workers in the community are thus dependent upon the honey-bearers for existence through the winter, the honey-bearers are no less dependent for existence upon the workers. The honey-bearers never leave the nest, for the very good reason that they are unable to do so. When not filled with honey, "in storage" for the other members of the colony, they are able to move about to a limited extent, but not to make the long trips to the oak thickets where the honey is collected. However, after the workers have filled the abdomens of the honey-bearers, the latter are unable to move from place to place at all. If they happen to lose their hold and fall from the ceiling of their apartment, the workers must lift them up in such a position that they can take a fresh hold. This helplessness does not seem strange when we know that the weight of the honey contained in the abdomen of each ant is more than eight times the weight of the ant's body. Nevertheless, more than twelve hundred honey-bearers would have to deliver up their stores of nectar to yield a single pound of honey.

The honey-making ants are of a light yellow color, with bodies thinly covered with minute yellow hairs. They are of small size, not less than ten thousand of the workers being required to weigh a single pound. In intelligence, they seem inferior to the Agricultural Ants of Texas, the Occident Ants of the Great Plains, and many other species. Nevertheless, their curious habit of making use of living storehouses is sufficient to give them rank among the most remarkable and interesting species of the great and interesting Ant family. Similar species are said to have been discovered in Australia and South Africa, but their habits and characteristics are but little known.

In many parts of Northern Mexico, the colonies of the honey-making ants are hunted and the ant hills dug open, in order that the honey-bearers may be collected. These are esteemed a great delicacy, and are eaten with avidity by the Indians and the lower classes of Mexicans. In Arizona, New Mexico and Colorado, not only the Indians, but many plainmen, miners and hunters as well, collect the rotunds and press out the honey, which they claim is much more palatable than that made by bees. Many Indian tribes also crush the ants with the honey in them, and use the sticky mass as a poultice for obstinate wounds and sores, considering this the most healing application within their knowledge.—John L. Cowan, in *The Lutheran*.

"Oh, strengthen me that while I stand
Firm on the rock, and strong in Thee,
I may stretch out a loving hand
To wrestle with the troubled sea."